

1. **SURFACE FOOTPRINT** – Surface facilities for the freeze wall include access points to the closed-loop pipe system, monitoring wells and groundwater wells, which will pump out the groundwater from inside the contained reservoir once the freeze wall is built.
2. **ICE WALL** – A chilled liquid would be circulated through a closed system of pipes causing the water in the surrounding rock to freeze and eventually form a wall of ice. This freeze wall will serve as a barrier to keep groundwater out of the contained reservoir.
3. **HOLES** – Shell will drill a maximum of 150 holes spaced about 8 feet apart in order to create the closed-loop pipe system.
4. **SHALE BED** – Up to 2,000 feet beneath the surface, the shale layer is a rock formation containing organic matter (kerogen). It is this organic matter trapped in the rock that results in oil and gas when gradually heated. Shell's goal is to find a way to produce this potential energy resource in an economically viable, environmentally responsible and socially sustainable manner.

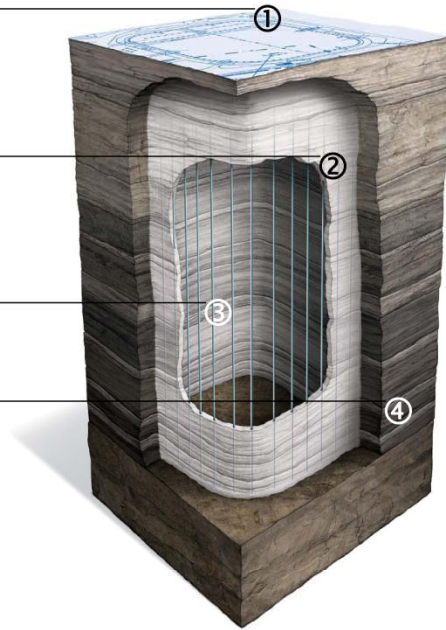


Figure 5. Freeze Wall